

ABSTRACT

A surface mount circuit protection device includes a laminar PTC resistive element having first and second major surfaces and a thickness therebetween. A first electrode layer substantially coextensive the first surface is formed of a first metal material of a type adapted to be soldered to a printed circuit substrate. A second electrode layer formed at the second major surface includes structure forming or defining a weld plate. The metal weld plate has a thermal mass and thickness capable of withstanding resistance micro spot welding of a strap interconnect without significant resultant damage to the device. The device is preferably surface mounted to a printed circuit board assembly forming a battery protection circuit connected to a battery/cell by battery strap interconnects, wherein one of the battery strap interconnects is micro spot welded to the weld plate of the device.